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THE BODY SPEAKS ITALIAN:  
GIUSEPPE LICETI AND THE CONFLICT OF PHILOSOPHY AND MEDICINE  
IN THE RENAISSANCE

**I. Introduction: Giuseppe Liceti, Philosopher-Physician**

Giuseppe Liceti's *De la nobiltà de principali membri dell'huomo* stages a compelling and learned debate among the four main bodily organs, as each of them seeks to demonstrate its supremacy: the brain as the organ of thinking, the heart as the centre of life, the liver as the origin of passions and desires, and the testicles as the organ of generation. The debate is not presented as a systematic discussion, but rather as a fictive disputation among the author's own organs while he is asleep. Liceti claims that they disputed so violently that they woke him up, allowing him to listen to their arguments. Finding the whole dispute amusing, he decided to write it down, despite feeling battered and bruised: in order to have a discussion, he writes, the organs had to wander around the body to meet and listen to each other.<sup>1</sup>

Liceti recalls that the work started as a disordered bundle of pages ('fogliacci'). Nevertheless the booklet was published in Bologna in 1590, allegedly thanks to the intervention of a friend, Andrea Ceva, who subsequently features as a main interlocutor in Liceti's second vernacular dialogue, entitled *Il Ceva, overo dell'eccellenza et uso de' genitali*. These are Giuseppe Liceti's only publications: he died in 1599, a year after the publication of *Il Ceva*.

Despite being presented as philosopher-physician ('medico filosofo') on the frontispiece of *La nobiltà*, Giuseppe Liceti is only ever mentioned, if at all, in histories of medicine;<sup>2</sup> his contribution to philosophy is almost entirely forgotten. Michele Giustiniani's account of writers from Liguria (1647) records that Liceti, although a native of Genoa, had studied both philosophy and medicine in Bologna, and that he received his degree there in 1589.<sup>3</sup> On the frontispiece of his second dialogue, concerned with physiological and medical questions related to generation, Liceti is simply described as a 'physician and surgeon from Genoa' ('medico chirurgo Genovese').

Liceti is known today almost exclusively as the father of his famous son, Fortunio (1577-1657), whom he is said to have saved from an untimely death by building the very first incubator, when the baby was born two months prematurely because his

mother was terrified when travelling by sea during a storm.<sup>4</sup> Fortunio became well known for his lengthy Latin treatises – Bonaventura Cavalieri mocked him in a letter to Galilei, stating that he wrote “a book a week”.<sup>5</sup> Fortunio himself played an active part in the reception of his father’s works.<sup>6</sup> In *De ortu animae humanae*, published when he was only twenty-five (1602), Fortunio claims that his father’s book on the genitals was the starting point for his own investigation of the subject.<sup>7</sup> But nothing could be more different from Giuseppe’s short vernacular dialogue than Fortunio’s enormous Latin treatise on the transmission of the vegetative and sensitive soul through the sperm.

The aim of this article is to highlight the importance of Giuseppe Liceti’s dialogues as an exemplary case of the Renaissance engagement with the conflict between medicine and philosophy. My analysis seeks to demonstrate that Liceti was neither an obscure author of advice manuals, nor a satirist merely writing “light pornography” with a misogynistic touch.<sup>8</sup> On the contrary, drawing attention to his dialogues will contribute to the ongoing reappraisal of Renaissance vernacular philosophy,<sup>9</sup> by showing how stylistic and terminological innovation were used to respond to the interpretative challenges faced by a Renaissance “philosopher physician”. In particular, I argue that Liceti employs the vernacular as a stylistic form in order to gain a certain degree of ironic detachment from the various sources he interweaves, challenges and compares in the text, most prominently Aristotle and Galen. While the topic he discusses is serious (“grave”), his style is consciously playful (“giocos”).<sup>10</sup> In content, language and style, Liceti masters different levels, developing an approach that turns the dialogues into complex hybrids, at the intersection of medical expertise and philosophical speculation. This is especially the case in the dialogue that has been most neglected by scholarship, *La nobiltà*. The polyphonic body of *La nobiltà* becomes the battlefield where ancient and modern theories meet and are critically assessed: Liceti pits contemporary anatomical findings against the legacy of ancient medicine, puts philosophical theories to the test of direct experience, and ultimately uses the conflict of medicine and philosophy to show that a new anatomy prompts new philosophical interpretations of the nobility not only of the human body, but also of the human being as a whole.<sup>11</sup>

I first examine the background of Liceti’s linguistic and stylistic choices, considering the position of his two dialogues in the literary and medical tradition of discussing the nobility of the bodily organs. I then address two main theoretical points.

The first concerns the question of how to combine the methods and results of medicine and philosophy: Liceti's work poses the fundamental question of whether a (Galenic) physician can be an Aristotelian, and conversely what kind of medical evidence is required by Aristotelian philosophy.<sup>12</sup> The second aspect relates to the implications of progress in the study of medicine and anatomy for the particular issue of identifying the seat and role of rationality in the human body. I argue that Liceti employs the debate of the organs to delineate different definitions of human uniqueness, showing how for him the distance of human from animal nature depends on the nobility assigned to certain organs over others.<sup>13</sup> In the conclusion I claim that by reading the two dialogues together it is possible to uncover in *La nobiltà* an alternative outcome of the contest between the organs to the brain's self-declared victory: taking account of another organ's moment of triumph earlier in the text opens up a different scenario with regard to the proximity of humans to animals.<sup>14</sup>

## 1. The Debate of the Organs in Context

If Liceti is to be believed, he did not intend to publish either of his dialogues. He claims that *La nobiltà* was published because Andrea Ceva saw the text when he was visiting him, and that finding it amusing he asked to take a copy with him, which he then handed over to the publisher without Liceti's permission or consent.<sup>15</sup> *Il Ceva*, on the other hand, was apparently rescued 'in extremis' from a gruesome fate: being thrown in the fire, or fed to woodworms.<sup>16</sup> This is, of course, a rhetorical topos; but it emphasizes nevertheless an important feature of Giuseppe Liceti's dialogues: the crossroads of different disciplines and cultural worlds in which they stand is represented by the network of people that the dialogues address and that was instrumental to their reception. This network reaches into the milieu of the universities and of practical physicians. *La nobiltà* addresses an audience of students,<sup>17</sup> and the text opens with a reference to the university lectures by the surgeon Gaspare Tagliacozzi (1545-1599) in Bologna; while Bartolomeo Della Torre, a physician from Genoa, features as Ceva's interlocutor in *Il Ceva*.<sup>18</sup> The world of the academies is also indirectly involved, as Andrea Ceva had lectured at the Accademia degli Svegliati in Pisa in 1588, only two years before the publication of *La nobiltà*.<sup>19</sup>

In this context, Liceti's explanation of his choice to write *La nobiltà* in Italian is noteworthy. Despite the fact that he had been advised that Latin was the more

appropriate language for this kind of philosophical discussion, in the address to the readers of *Il Ceva*, Liceti cites two reasons why, in fact, both dialogues had to be written in Italian:

Nobody should be surprised that this treatise is published in our vernacular tongue, since I know very well ... it would have been better in Latin; yet I decided to let it be published this way because it is a defence of another dialogue of mine, on almost the same subject, also published in the vernacular; and, moreover, I was easily convinced to do so because it did not contain any indecent and less than honest terms.<sup>20</sup>

The first reason is that the dialogues need to speak the same language in order for one to support the other. This, in turn, was necessary because the publication of the first dialogue had been met with criticism, as Liceti states that he was “almost obliged to defend [himself] from those who were wrongly tearing apart [his] writings”.<sup>21</sup> Liceti does not mention the names of his critics. Yet it is clear that the accusations were directed at both the style and the content, for Liceti had included the testicles among the main bodily organs, and had given them a prominent place and an irreverent voice in the dialogue. It is not by chance that the second reason given by Liceti for the choice of the vernacular is expressed in terms of a defence: the dialogue *La nobiltà* “did not contain any indecent and less than honest terms”, alluding to the speeches of the testicles. The testicles, more than the other three organs, had highlighted the issue of the compatibility between content and style: evidently some early readers of *La nobiltà* questioned the appropriateness of discussing the nobility of the organs by giving the testicles not only a voice, but even an Italian one.<sup>22</sup>

The testicles reflect on the legitimacy of their speaking in the vernacular at a point in the *La nobiltà*, when, directly challenging one of the main speakers in the dialogue, the heart, they promise a full display of the subtle arguments in their defence by stating: “Mr Heart, now listen up a little while and see if we are still able to argue”, or literally, “to know our Latin”.<sup>23</sup> The expression “to know one’s Latin” refers primarily to the ability to argue properly. Yet the testicles, as well as all the other organs in the dialogue, know their Latin in a dual sense: they display good knowledge of a wide range of sources in Latin, which they discuss using sophisticated Italian terminology, transferring fundamental concepts from Latin into Italian; furthermore, by stressing

the fact that they speak Italian, they demonstrate that using the vernacular, rather than Latin, does not imply lessening the depth and rigour of philosophical argumentation.

It is significant that the proudest Italian speaker of the dialogue turns out to be the testicles, arguing in favour of their own nobility, a word primarily understood in terms of the importance of the function performed by each. In *Il Ceva*, the character named Ceva points out that critics of *La nobiltà* had objected to the inclusion of the genitals amongst the main bodily organs, attacking Liceti for giving them a thinly disguised primacy over the others. Ceva's interlocutor, Della Torre, replies that this critique was absurd, since Liceti had not been the first to include the organs of reproduction among the noblest ones.<sup>24</sup> He had, in fact, drawn on a long-standing tradition.

The literary model of the debate about the nobility of bodily organs has deep roots, as Fortunio Liceti points out in *De mundi et hominis analogia*. Here he underlines the connection between his father's dialogue and its most famous antecedent: the speech by the Roman consul Menenius Agrippa, narrated by Livy, in which the state had been compared to the body, and the organs likened to the different parts of the republic.<sup>25</sup> Fortunio emphasizes that Agrippa himself had included the testicles in the metaphor, to represent the faculty of generation.<sup>26</sup> Yet the aim of the two texts is completely different: Giuseppe Liceti's dialogue is presented as a dream, but not as a metaphor, and rather than seeking to draw political conclusions, it stages the conflicts in the context of the medical and philosophical traditions. The metaphor of the body politic is employed only in the conclusion of Liceti's dialogue, where the brain crowns itself as the winner by comparing its role to that of a king who forbids any further discussion.

From a medical point of view, the selection of these four organs – the brain, heart, liver and organs of generation – as the noblest parts of the body has an important precedent in Avicenna. In his *Canon*, Avicenna had explained that, even if there are only three organs strictly necessary for the life of an individual (the brain, heart and liver) the organs of generation should be added to the list as well, since they are essential to the preservation of the entire species.<sup>27</sup> According to the Greek model that became most influential in the Latin West, based primarily on Galenic medicine, the body had three main organs, corresponding to three powers of the soul located in the brain, heart and liver.<sup>28</sup> Yet, the organs of generation are occasionally included as well:<sup>29</sup> the idea that there are four main organs, and not three, resurfaces, for instance,

in a version of the popular pseudo-Aristotelian *Secretum secretorum*, paving the way for Liceti's own interpretation.<sup>30</sup>

In Renaissance medical literature, discussion of the nobility of the bodily organs or parts was embedded in the practical context of medical intervention. In *Chirurgia nova*, published in the same year as *Il Ceva* (1598), the Bolognese physician Gaspare Tagliacozzi had argued, with reference to Aristotle, that the face was without doubt the noblest part of the human body, both in terms of *praestantia* and of *dignitas*, since the face distinguishes humans from animals and in it the divinity of the human shines through most clearly.<sup>31</sup> This view rested, of course, on a long physiognomic tradition, which owed much to the *Secretum*, and which Tagliacozzi reconfigured from a strictly medical viewpoint. It also shows the stratifications of meaning with regard to the nobility of the organs, as the conception of the physiological primacy of certain bodily organs over others is placed next to the identification of the main organs as a way to define human beings and their position in the world.

Benedetto Varchi (1503-1565) had also notably approached the question of the nobility of the organs, but had more strongly intertwined medical and philosophical discourses, drawn especially from Galen and Aristotle. In a lecture on the generation of the human body, which starts from an interpretation of Canto 25 of Dante's *Purgatory* and was delivered at the Accademia Fiorentina in 1543-4, Varchi had pointed out the conflict among philosophers and physicians over which organ is to be considered most important for the functioning of the human body.<sup>32</sup> As Liceti was later to do, Varchi recognized the role of practice and observation, which often intervenes to correct overly abstract theories.<sup>33</sup> Annalisa Andreoni has rightly pointed out that although Aristotle remains the crucial source and authority for Varchi, he does acknowledge that new medical and anatomical discoveries might lead to some adjustments.<sup>34</sup> The discussion of the role of the testicles in generation is of fundamental importance in the lecture; but they are not included among the main organs (the liver, heart and brain)<sup>35</sup> and there is no profound challenge to Aristotelianism, the principal philosophical position in the lecture. With regard to the function of the testicles in particular, Varchi reports that "according to Aristotle [they] are employed only as an instrument, and are, according to him, like two lead weights that keep the spermatic vessels open, that is to say the vessels of the semen."<sup>36</sup>

Of course, there are apparent stylistic differences between Varchi's academic lecture and Liceti's playful dialogue, as reflecting their different aims and

readerships.<sup>37</sup> A shared feature, nevertheless, consists in the fact that in both cases abundant space is devoted to the discussion of the organs of generation, because it is in the understanding of the process of generation that the problematic interaction of medicine and philosophy is most evident. As Varchi clearly explains, what is at stake is ultimately the conception of the human soul itself, and especially the question of whether it is entirely transmitted with the sperm, or is at least in part infused later (as Varchi holds).<sup>38</sup> Varchi's lecture and Liceti's dialogue were also both seen as being dangerously close to pornography, because of their discussions of generation.<sup>39</sup> With regard to Liceti, the hostile reception of his dialogues suggests that some readers did grasp (but disagreed with) the crucial role of the testicles in the dialogue. They feature in the list of the noblest organs and they even overshadow the merits of the others, functioning as the catalyst of the conflict between philosophical and medical approaches.

## **2. The Conflict of Philosophy and Medicine: Aristotle versus Galen versus Liceti**

In *Il Ceva* Aristotle is mentioned as the main point of reference for the controversy between the *Dottori* who received Liceti's work favourably, and those who instead criticised it.<sup>40</sup> The two interlocutors, Ceva and Della Torre, stage the contrast between the Aristotelians and Liceti himself by agreeing to a role-play: Ceva, who declares in the dialogue that he knows little philosophy and is completely ignorant of medicine, will play the part of the defendant of Aristotle, while Della Torre will defend Liceti and also side with Galen.<sup>41</sup> Aristotelianism is thus opposed to the views of both a modern and an ancient physician.<sup>42</sup>

The dialogue stages the challenge to certain Aristotelian conceptions from the perspective of Renaissance medicine. The underlying question is: can a Renaissance physician be an Aristotelian and, if so, how can he reconcile Aristotelian biology with medical practice? And furthermore, can there be a sensible dialogue between Galenic medicine and Aristotle's biological approach or will they inevitably talk past each other? Liceti does not simply oppose medicine to philosophy, or Aristotle to the physicians. Rather, both in *Il Ceva* and in *La nobiltà* he uses the dialogue genre to reflect on the question of whether philosophical principles help or hinder the correct interpretation of medical and anatomical findings.<sup>43</sup> Liceti sets up the contrast between Aristoteleanism and Galenism within the context of his critical exploration of the



advancement of medicine and its impact on the slower development of philosophical theories.<sup>44</sup> His work testifies to Cees Leijenhors's apt description of the crisis of Aristotelianism as a phase of "overheating" rather than of "sterility".<sup>45</sup>

In *La nobiltà* each of the organs has recourse to a number of ancient and modern medical and philosophical sources. Yet specific positions ultimately crystallize. The heart is a "partisan of Aristotle",<sup>46</sup> and his main representative, since Aristotle in *On the Generation of Animals* drew a parallel between the heart and the sun, on the grounds that each of them produces the heat that is responsible for generation.<sup>47</sup> The brain employs Galenic arguments about the study of the nerves to prove that it is actually the source of all movement, but it also tries to claim Plato for its side. The liver, too, has a particular connection to Plato, who considered this organ as the seat of the passions and of the appetitive faculty.<sup>48</sup> The testicles, for their part, often point out that Aristotle is also on their side since he studied and rehabilitated the important function of animal generation; yet at the beginning of the dialogue the testicles are said by the narrator to be in the same camp as the liver and the brain in using Galen and Plato against the heart's stubborn Aristotelianism.<sup>49</sup>

The attempt of the organs to enlist and claim for themselves the main sources of the debate – Aristotle, Galen and Plato – often leads to ironic twists in their conversation. The heart accuses the liver of being unable not only to argue properly, but even to understand the real meaning of the sources it employs, especially Plato. It adds that Plato certainly recognized the nobility of the heart, while claiming that he did not regard the testicles as an important organ at all, since they are not mentioned in the relevant passage of the *Timaeus* regarding the functions of the organs.<sup>50</sup> The testicles reply to the heart's protest ("oh, do let me speak") by rebuking it: "and you, leave us alone, keep your hands off our honour!"<sup>51</sup> What is at stake in the dialogue is ultimately the assessment of which philosophical positions derived from Antiquity are still tenable in the light of recent developments in medicine.

This assessment begins on a terminological level, as Liceti translates and adapts the Latin philosophical and medical terminology of his sources, consciously choosing a playful tone to lessen the theoretical density of the content. Liceti's dialogues are populated not only by ancient philosophers and physicians, but also by contemporary doctors such as Vesalius, Realdo Colombo and Falloppio, who are all explicitly mentioned. *La nobiltà* begins with a reference to Tagliacozzi's lectures on the brain,<sup>52</sup> which Liceti mocks by stating that his own brain, one of the main speakers in the

dialogue, was in fact such an ignoble and vain organ (“cervellaccio”) that it literally became inflated on hearing itself praised, pushing the melancholic humour out of the ears and becoming very joyful and excited.

Liceti’s organs are well-read Renaissance disputants, able to address terminological problems in their sources. One such problem is raised in a speech given by the liver, where the word “vena” is declared to be ambiguous, because it can mean both vein and artery:

Do not go about boasting just because Plato said that you are the origin of the veins, because by veins Plato means in that instance those vessels that nowadays those who are more modern call, along with Galen, arteries, that is, those that pulsate, of which you are indeed the origin ... but I am the origin and source of those that do not pulsate and quietly bring the blood to all parts of the body.<sup>53</sup>

Further facets are added through comments that specifically concern the translation of key terms from Aristotle’s Greek into Italian via Latin. A notable example is the long discussion about the origin of the nerves (“nervi”). In *On the Parts of Animals* Aristotle stated that the heart is the origin of movement, and that this explains why it has an abundance of sinews<sup>54</sup> – in Greek *neuron*, which can also mean tendon or, indeed, nerve.<sup>55</sup> The Renaissance fascination with the anatomical study of the brain led to a reassessment of the meaning to be attributed to Aristotle’s *neura*, voiced in *La nobiltà* by the brain, which challenges the heart to demonstrate by means of anatomy that it is the origin of the nerves.<sup>56</sup> With this appeal to direct experience, the brain asserts that it is the source of sense and movement, against Aristotle, and in accordance with the anatomists and doctors, and with Galen: quite literally, Aristotle “does not know what he is talking about”,<sup>57</sup> because he had not made the appropriate observations, and such confusion is reflected on the level of terminology, too, since the “nervi” of the dialogue are not Aristotle’s sinews of the heart.<sup>58</sup>

The authority of Aristotle is at the centre of the debate between the heart and the liver in the first part of the dialogue. The heart states unequivocally that Aristotle’s doctrine is the truth; however, the liver voices a critique of the heart’s Aristotelianism by itself referring to Aristotle:

According to the authority of your own Aristotle, the human being lives three types of life ... First he lives like plants, that is to say, for nourishment only; then he lives like an animal, adding sensation to

the vegetative faculty; and finally he lives as a human with the arrival in the body of the rational soul, which comes from outside, and not from matter, like the other two souls.<sup>59</sup>

This is an accurate summary of book two, chapter three of *On the Generation of Animals*; but the liver expands on Aristotle by applying the psychological sequence in the development of a creature to the specific case of the formation of the organs, arguing that the liver comes first, as it embodies the life of plants in the body of an animal. But since the liver does not move, it is mistakenly neglected, and the heart is given an undeserved primacy. The movement of the heart is described by the liver as “opaque, and imperfect, and similar to that of the oysters, of mussels and of molluscs in their shells, and other similar natures that are between plants and animals, and that the Greeks call zoophytes”.<sup>60</sup> The reply of the heart is telling: it stresses that Aristotle’s reasoning on the basis of foundational principles is incompatible with the liver’s claim that biological primacy means supremacy in terms of nobility. “Such explanations of yours are not explanations at all” – the heart continues – “but mere chimeras of clueless, brain-dead doctors and of lazy anatomists. I want Aristotle ... and not Galens!”<sup>61</sup>

Yet, Liceti does not simply portray the liver as a paladin of anatomy, nor the heart as an old-fashioned supporter of Aristotle, uninterested in observation. Rather, he points to the embarrassment of the philosopher-physician, who is well aware of the conflict between some Aristotelian theories and of the need to address both the medical tradition and its latest developments. It is well known, for instance, that Aristotle faced the difficulty of explaining why the human heart is located in the left side of the chest: given his view that the position of each organ in the body is in accordance with its nobility, and that the centre is more noble than either the left or the side, it follows that if the heart is the most noble organ, it should enjoy a central position.<sup>62</sup> This theory is often mentioned in Liceti’s dialogue, where its inconsistencies appear: despite Aristotle’s interest in generation, for instance, the relationship of organs and their bodily positions seems to imply that the organs of generation are the least noble, since they occupy a lower position in the body. Similarly, it is puzzling why the brain should be regarded by Aristotle as an ancillary organ, the main function of which is that of cooling down the heat of the heart, since it occupies a central, upper position.<sup>63</sup>

Liceti encourages his readers to appreciate conflicts of this kind between metaphysical principles – such as the criterion of nobility itself, or the belief that there can be only one primary organ only<sup>64</sup> – and anatomical evidence. The liver complains that it should not be considered less worthy than the heart: this judgment derives from comparing the heart to the male and the liver to the female, and concluding that, according to the principle that the male is superior to the female, the heart is superior to the liver. But the liver points out that the superiority of the male over the female remains to be proven (Liceti might have in mind here works such as Heinrich Cornelius Agrippa's *De nobilitate et praeecellentia foeminei sexus*, published in Italian for the first time around 1530 and then again in 1544).<sup>65</sup>

The superiority of males over females is discussed further in *Il Ceva*, developing an implication that in *La nobiltà* remains in the background: the presence of the testicles as speakers seems to eliminate women entirely from the debate. It is true that in the Renaissance both the male testicles and the female ovaries could be called testes, a terminological ambiguity that goes back to the Alexandrian physician Herophilus, who used the word *didymoi* (literally, “twins”) to define both.<sup>66</sup> Yet, in Liceti's narrative the genital organs debating their nobility are the author's own (also, notably, the only ‘double’ speaker in the dialogue). Moreover, the main theory at stake is Aristotle's view that the testicles do not play an essential role in generation, functioning instead like “weights”, as was discussed by Varchi.<sup>67</sup>

The topic of the superiority of one gender over the other resurfaces in the context of a discussion of castration: the question debated is whether castration indirectly proves the crucial role of genitals as the noblest organ, since humans and animals which have undergone castration seem to change nature radically.<sup>68</sup> “But what do you say about women?”, asks Ceva. Their nature, he states, cannot worsen as a result of castration.<sup>69</sup> The interlocutor answers that the question can only be intended as a joke, since Ceva prides himself on speaking respectfully of women. In any case, they agree that not many women are castrated, and the conversation moves to the castration of female animals, which is done either to fatten them for slaughter, or to stop reproduction.<sup>70</sup> The debate on castration shows in an exemplary way that the comparison between animals and humans plays a crucial role in this context, and it is no coincidence that Liceti refers to this topic several times in the text. Ultimately, the gap opening between medical and philosophical theories urges a reassessment of the foundation of human uniqueness.

### 3. The Seat of Rationality and Aristotle's Anatomical Mistakes

Another noteworthy example of such an untenable incongruity in Aristotle consists in statements about the size of the brain in *On the Parts of Animals*.<sup>71</sup> Since these statements do not stand up to anatomical scrutiny, the question arises whether Aristotle neglected observation in favour of following the metaphysical principle that males are superior to females, and humans to animals. Countering Aristotle's statement that among animals humans have the largest brain in relation to their size, and that human males possess a larger brain than females,<sup>72</sup> the brain argues in *La nobiltà* that "it is false that I am bigger in a man than in a woman", telling the heart: "you should look this up properly, not in Aristotle, who never saw me, but in Galen, in Vesalius, Realdo Colombo, and Falloppio, very skilled anatomists, and you'll see how wrong you are."<sup>73</sup>

The question of how to translate and adapt ancient philosophical and medical terminology in a vernacular discussion is even more prominent when the characters in the dialogue employ the word faculty, *facoltà*. The difficulty of pinning down what a faculty is, especially according to Aristotle and Galen, and how this concept relates to the anatomical study of the body, is reflected in the eclecticism of the speeches made by the various organs. In the exchange already mentioned about the origin of the veins, the heart fights against the primacy of the liver by reinterpreting the latter's claim that its function is that of nourishing the whole body, like a trough (a "mangiatoia"). It might perform that function – the heart answers – but only because it "feeds" the lower parts, which the heart compares to wild beasts. Thus the heart calls the liver a feeding trough only suitable for animals.<sup>74</sup> The heart uses the human-animal comparison to sketch a hierarchy of values between anatomical functions: as the source of blood, the heart declares itself to be "the seat of that faculty, which those veins work to spread through the whole body".<sup>75</sup> The liver's answer to this provocation is to point out the irony that the fury of the heart's argumentation only demonstrates that it is the seat of impulsive, rancorous feelings.<sup>76</sup>

Furthermore, the heart's attempt to raise itself above the liver fails to take into account that if one returns to the conception of faculty, and especially to the idea of a hierarchy between more and less worthy faculties, then the primacy should be given to the brain, called by the liver the seat of the reasoning faculty.<sup>77</sup> The brain refers to

itself as the “seat of the rational soul, principle of the animal faculty, origin of motion and feeling” and thus concludes that it is “beyond comparison much nobler”<sup>78</sup> than the heart. Yet the juxtaposition of different terms and concepts betrays the legacy of a varied philosophical tradition, which cannot be precisely identified.

In this case the strategy of the brain seems to be that of confusing its opponents by citing all the generic tasks, skills, and faculties traditionally attributed to it, adding that it is also nobler because “memory, the cogitative faculty and imagination reside” in it.<sup>79</sup> But while mentioning these faculties as further elements that contribute to its nobility, the brain also stresses that rationality alone plays the pivotal role in distinguishing human beings from all other forms of life, and from the animals in particular. Leaving aside the specific reference to the capabilities of remembering, and of cogitating (a term with a complex philosophical background), the brain resorts to a general view of Aristotelian origin: “The animal appears to live as an animal when it moves and feels, to live as an animated body through nutrition, and as a human being by reason.”<sup>80</sup> Galen himself had stressed that only the exercise of the rational faculty allows humans to be different “from goats, and dogs, pigs, sheep, or donkeys”.<sup>81</sup> The rational faculty, with its headquarters in the brain, regulates, restricts and even transcends the body: in other words, it is able to act on the body because it does not belong to the body.

In his *Letzione* to the Accademia degli Svegliati, Andrea Ceva had discussed the role of reason as a main point of differentiation between humans and animals. A large section of the text is devoted to the question of human happiness, defined as a human being’s “proper and ultimate goal”,<sup>82</sup> exploring whether this consists merely in bodily pleasures, such as eating and drinking, which humans shares with animals. In this context the human being is described as the only creature that sets itself a goal and then employs the appropriate means to achieve it, thanks to “reason, with which he is endowed and which the other animals lack completely (despite what some silly physicians say).”<sup>83</sup> Given Ceva’s interest in the theories of physicians, such as Liceti, this sentence betrays the use of a rhetorical strategy to deflect attention from the real issue at stake: that if there are no “natural reasons”<sup>84</sup> for arguing that humans and animals are different in their pursuit of happiness, then humans might actually be considered as living a life that is very similar to that of animals. Ceva expresses this doubt when he writes: “truly it appears that the human being is treated worse by nature in this respect than animals, which never fail in pursuing their goal, while the human

being can make thousands of mistakes, often choosing what is worse for itself out of ignorance or unwillingness.”<sup>85</sup> Therefore, the human being’s highest goal, the pursuit of happiness, is adversely affected by a lack of efficiency and competence in striving towards it, while animals do not appear to fail in achieving their goals.

From the initial methodological statement about the use of natural reasoning only, the text proceeds to introduce some doubt as to whether reason really constitutes the difference between humans and animals, and whether the pursuit of happiness in human life is anything more than the animals’ enjoyment of bodily pleasures. Ceva condemns this position, while voicing it clearly, and even listing the bodily satisfactions shared by humans and animals: “What voices, not of humans but of beasts, are these that are heard? So true happiness is to be found in corporeal happiness?”<sup>86</sup> This citation of the physicians’ opinion suggests a convergence of medicine and philosophy on a rather materialistic level, that is to say by emphasizing that the body is the foundation for the happiness of all creatures.

In *La nobiltà*, Liceti uses a similar strategy to Ceva’s: although he presents the theory that rationality is the sign of human dignity, he nevertheless uses the dialogue format to subvert this simple way to maintain human superiority. At the conclusion of the dialogue, the brain, the seat of rationality, triumphs over all other organs, and especially the testicles, the seat of the more basic and base function of generation. As the seat of the rational faculty, the brain should be the most skilled of all the organs in arguing in favour of its own nobility. Instead, however, it uses fables and allegories, “employed as arguments by the knowledgeable”.<sup>87</sup> The main source mentioned in the conclusion of the dialogue is Plato’s *Timaeus*. Rather than anatomy, it is Platonic philosophy that is employed to explain why the head is round: the gods shaped it that way so that it would resemble the world, and the divine gifts of the soul, intellect and will, were placed in it.<sup>88</sup> In vain the heart protests that Galen made numerous mistakes precisely because he followed Plato rather than Aristotle.<sup>89</sup> Sidestepping any further explanation, the brain compares the body to a republic with fixed laws regulating it: the soul is said to operate in the whole body through the plurality of its instruments, while the brain is the worthy seat of the rational power that defines the human being as such.<sup>90</sup> Liceti, like Ceva, thus implicitly questions the legitimacy of this view of the brain’s nobility, and, as a result, of the human being’s superiority as a rational creature.

#### 4. Conclusion: Two Winners?

To contemporary readers, the victory of the brain at the end of *La nobiltà* must have appeared not entirely settled, above all because Liceti had given an unusually strong voice to the testicles.<sup>91</sup> At the beginning of *Il Ceva*, Ceva and Della Torre reconsider the meaning of nobility and whether the organ to be elected as the noblest is the one, which is the origin of essential parts of the body. Ceva challenges the view that the brain is the noblest because it is the origin of nerves and veins. Such a prerogative should rather be attributed to the heart and the liver.<sup>92</sup> Yet as the discussion develops, it is the genitals, which are revealed as the most original, that is to say fundamental, organ, because in the semen is encapsulated the whole man.<sup>93</sup> Therefore, if nobility means being the origin, the testicles are still a possible candidate to win the contest.

Moreover, while the brain's self-declared victory is the real conclusion of *La nobiltà*, it is a comment by the testicles, earlier in the dialogue, that sets the tone for the entire development of the discussion, and continues to resonate as a sort of admonition even in the conclusion, where the testicles are declared to be the least noble of all organs. The comment follows from a discussion of the "nervi reversivi", which an experiment on a dog, reminiscent of Galen's own practice of vivisection, showed to be involved in the act of speaking. The testicles apply this anatomical investigation to the main issue of the partisanship of the organs in the dialogue:

Those who speak against the truth, that is, against what is proven by experience and reason together, and who don't care about lying as long as they speak in favour of Aristotle, or of another writer they have chosen to defend, deserve to have those two nerves cut through without any mercy, so that in future they won't spread errors in the minds of those who are still ignorant.<sup>94</sup>

Whether Aristotle, or Galen, or Plato is selected as the privileged source of knowledge, the real problem is how to manage the plurality and the diversity of sources, and whether it is justifiable to follow only one of them. Through the discussion of the nobility of the organs, Liceti addresses questions of authority, distancing himself from any one particular school, and appealing to the need to compare and revise by means of experience and reason. It is the testicles, not the brain, which voice this crucial issue in the dialogue.



*La nobiltà* puts Galen and Aristotle on trial, considering how well their theories of the interaction of body and soul withstand the inquiring approach of philosopher-physicians like Liceti himself. This is a complex operation of critical transmission, enabled by the dialogue format. Liceti's Italian dialogues are reflections on the legacy of ancient philosophy, and on the eclectic beginnings of new Renaissance developments, at the crossroads of anatomy, medicine and metaphysics. Liceti shows that negotiating the legacy and authority of Aristotle is the key to understanding how a Renaissance physician should engage with philosophical principles, and conversely how an Aristotelian philosopher should approach the study of medicine, a subject on which Aristotle famously remained silent (if one excludes the medical advice in the pseudo-Aristotelian *Secretum* and in the *Problemata*). Liceti's strategy in dealing with this varied legacy consists in transferring the debate to the interior of the body itself. The different perspectives of the organs display the intertwining and contrasting of the sources, while permitting the author of the dialogue an ironic, sceptical detachment.

This strategy is embodied at its best in the most embarrassing organ in the dialogue, the testicles, which quote from different sources but conform to none of them, and which are endowed with the most explicitly ironic voice in *La nobiltà*. To the main criticism that they are not essential for a creature's survival, they reply that the heart can rightly be considered the source of life, but that they make it possible not just to live, but to live well, going against both Aristotle and Galen.<sup>95</sup> The heart, speaking in Aristotelian terms, argues not only that the testicles are unnecessary for generation, but that the animals which have them are those least inclined to generate, and most prone to chastity. The answer of the testicles goes proudly in the opposite direction: they claim that they augment lust, rather than diminish it.<sup>96</sup> The testicles appear to view the pleasure animals derive from the use of their genitals as an essential part of animal life, and a heightened level of "lust" (*lussuria*) as a *bonus* rather than a *malus*.

In *On the Length and Shortness of Life* Aristotle had maintained that lustful animals tend to have short lives because of the weakening effect of sexual intercourse. Liceti's testicles take an anti-Aristotelian stance in this case, since they do not warn against the dangers of lust but instead praise it.<sup>97</sup> The problem raised by Aristotle was well known and debated throughout the Middle Ages, and is clearly formulated in a very successful collection first printed in Latin in 1491 and in Italian in 1495: the *Fasciculus medicinae*. In a section dedicated to gynaecology and reproduction, the theory about the dangers of lust is discussed with reference to Aristotle. Lust, it is

claimed, consumes the brain by causing a dissipation of humidity.<sup>98</sup> Against this tradition, the testicles in Liceti's dialogue embody the need for careful anatomical investigation, using later anatomists to correct Aristotle, whose views show that he did not know the proper function of the testicles (nor that of the ovaries in women). The testicles are the *trait d'union* between the interpretation of the nobility of the organs as based on the sheer efficiency of the bodily functions, and a more comprehensive view of animals' lives, and of human life in particular, including the striving for pleasure, and happiness, beyond the strictly biological need for reproduction.

In both dialogues, Liceti's rhetorical strategy involves intertwining several voices, representing more than just one position on the matter of nobility. Therefore it can be said that ultimately he delivers not one winner (the brain or the testicles), but two completely different conceptions of the human being. If the brain is considered to be the winner, as it explicitly is, then rationality marks the difference between humans and animals, setting up a clear hierarchy, also represented in the fact that the brain crowns himself king of the body. If the testicles are instead viewed as the 'real' winner of the debate, as Liceti's contemporary critics seem to have suspected, then humans are instead grouped with those animals that, like them, possess external genitals. In the first scenario, the conflict of medicine and philosophy is resolved by considering the brain's nobility as both an anatomical and a philosophical concept. In the second scenario, it is the human being's continuity with the world of animals that is emphasized.

A central feature of Liceti's rhetoric lies in his use of the Italian language. Therefore, it is important to note that, of the characters of the dialogue, it is the testicles that are the most proud to speak Italian,<sup>99</sup> as the choice of letting them express themselves in the vernacular is directly defended in *Il Ceva*. The Italian language they use is filled with exclamations and colourful expressions, criticising in particular those who do not refrain from telling lies, and who reject truth (that is to say, experience) as long as they follow an authority.<sup>100</sup> This goes hand in hand with the testicles' argument, which sets both human and animal lust in a positive light. Ultimately, it is their irreverent voice that turns *La nobiltà* into a sharp reflection on the legitimacy not only of questioning the authority of Aristotle in the light of medical practice, but also of doing this in Italian, without fear of resorting to "less than honest terms", and even while holding, metaphorically, the surgeon's knife, threatening to cut the vocal cords of the blind disciples of any school, ancient or modern.

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1. *Nobiltà*, 8-9.

2. See e.g. De Renzi, *Storia della medicina in Italia*, vol. 3, 288 and vol. 4, 169. References to Liceti's theory of generation appear in Brownlee and Finucci, *Generation and Degeneration*, 54; and Finucci, *The Manly Masquerade*, 133. *Il Ceva* featured in the library of Francesco Cesi: Biagetti, *La biblioteca di Francesco Cesi*, 70.

3. See Bronzino, *Notitia doctorum*, 97 and Giustiniani, *Gli scrittori liguri*, 484.

4. The story is well known. See for instance Bates, *Emblematic Monsters*, 78.

5. See letter to Galileo, 5 June 1640 (Galilei, *Commercio epistolare*, 389). On the correspondence between Fortunio Liceti and Galilei see Marangio, "I problemi della scienza nei carteggio Liceti-Galileo". For essential information on Fortunio's life and works see Lohr, "Latin Aristotle Commentaries II. Renaissance Authors", 222-223.

6. Fortunio's works are also a source of information about Giuseppe Liceti's life, of which not many details are otherwise known: see Liceti, *De priorum operum historia*, 5, and 8-9. About Giuseppe's work in Corsica see Liceti, *Hieroglyphica*, 379-380.

7. On Fortunio Liceti's theory of generation see De Angelis, *Anthropologien*, 195-196; and Blank, "Material Souls and Imagination in Late Aristotelian Embryology", and on Fortunio's conceptions of matter and soul see Blank, "Fortunio Liceti on Mind, Light, and Immaterial Extension". Specifically on Liceti's critique of Marsilio Ficino see Hirai, *Medical Humanism*, 123-150.

8. Bell, Review of Finucci, V. *The Manly Masquerade*, 244. See also Bell, *How to Do It*, 57, where Liceti's works are considered to be an instance of 'degradation' in the popular diffusion of medical knowledge.

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9. The view that philosophy in the vernacular did not reach the level of refinement and complexity of philosophical works in Latin is now being challenged by a growing body of scholarship: see Lines, "Beyond Latin in Renaissance Philosophy"; Lines and Refini, *'Aristotele fatto volgare'*; and Bianchi, Gilson and Kraye, eds., *Interpreting Aristotle*.
10. *Nobiltà*, 10.
11. According to Caroti, 'L'Aristotele italiano', Italian is the only vernacular language in which a systematic presentation of Aristotelian natural philosophy took shape (see also Bianchi, "Per una storia dell'aristotelismo 'volgare' nel Rinascimento", 377).
12. I suggest that Liceti's dialogue should be included in Luca Bianchi's list of exemplary Renaissance dialogues presenting selected aspects of Aristotelian philosophy (Bianchi, "From Jacques d'Étapes to Giulio Landi", 43). On the genre of dialogue see e.g. Cox, *The Renaissance Dialogue*.
13. There is only space here to refer to the well-known issue of the possibility of reconciling Aristotelianism with the teaching of anatomy in universities: Randall, "The Development of Scientific Method", 182; Cunningham, "Fabricius and the 'Aristotle Project'".
14. For an overview of Renaissance debates on the human/animal border see Muratori, ed., *The Animal Soul and the Human Mind: Renaissance Debates*. On the ethical implications in particular see Muratori and Dohm, eds., *Ethical Perspectives on Animals in the Renaissance and Early Modern Period*.
15. *Nobiltà*, 9.
16. *Ceva*, 3-4.
17. *Nobiltà*, 5 and 8.
18. *Ibid.*, 5.
19. On Bartolomeo Della Torre, see Giustiniani, *Gli scrittori liguri*, 123.
20. *Ceva*, 6: "Non si maravigli alcuno se questo trattato si manda fuori nella nostra volgar lingua, per che so ben' io ... che egli sarebbe stato meglio nella latina; ma mi è paruto di lasciarlo così uscire, per essere difesa di un'altro mio Dialogo quasi dell'istessa materia, dato fuori pure in volgare; & tanto più facilmente mi sono a ciò indotto, non contendendo egli termini sconci, ne meno che honesti."
21. *Ibid.*, dedication to Alessandro Spinola, 3: "trovandomi quasi astretto a difendermi da chi a torto lacerava i miei scritti".
22. See *ibid.*, 3-4.
23. *Nobiltà*, 17: "Hor voltate carta, Signor Cuore, e sentite un poco se noi ancora sappiamo far il nostro Latino."
24. *Ceva*, 9.
25. Livy, *Ab urbe condita*, II.32.
26. Liceti, *De mundi et hominis analogia*, 126 and 123.
27. See Avicenna, *Canon* (in Gruner, *A Treatise*), § 123.
28. On Galen's account of the tripartition of the soul see Debru, "Physiology", 268. On the problems deriving from this overlap of physiology and psychology see Gill, "Galen and the Stoics", 419. On the history of this physiological model see Nutton, *Ancient Medicine*, 299 and 118 for its Platonic roots.
29. See Siraisi, *Medieval and Renaissance Medicine*, 107 and Siraisi, *Avicenna in Renaissance Italy*, 28 and 30.

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30. See Schauwecker, “La diététique dans les *Secrets des secrets*”, especially 130.
31. Tagliacozzi became famous for his surgical procedure of rhinoplasty, so his emphasis on the nobility of the face is instrumental to the justification of his method. Finucci, *The Prince’s Body*, 72-74. On the details of Tagliacozzi’s method see Gadebusch-Bondio, *Medizinische Ästhetik*, 148-153.
32. See Varchi, *Lezioni*, vol. 1, 11.
33. See *ibid.*, 10.
34. See Andreoni, ““Sangue perfetto””, 157.
35. See Varchi, *Lezioni*, vol. 1, 22 and 28.
36. See *ibid.*, 16: “i testicoli, secondo Aristotile, servono solamente per instrumento, e sono, secondo lui, come due piombi o pesi che tengono aperti i vasi spermatici ovvero seminarii.”
37. On the aim of the text, see *ibid.*, 10, and 26, where Varchi avoids siding clearly with either Aristotle or Galen, when he considers the evidence to be unclear.
38. *Ibid.*, 36 on the “potenze della materia” as opposed to the “anima razionale, ovvero intelletto umano”.
39. See Andreoni, *La via della dottrina*, 110.
40. *Ceva*, 8.
41. See *ibid.*, 11.
42. On Galen’s position against the backdrop of Aristotelianism see Donini, “Psychology”, 189.
43. On the intertwining of philosophical and medical approaches to anatomy in the Renaissance, see Carlino, *Books of the Body*, 121-128.
44. See Wear, “Galen in the Renaissance”; Schmitt, ““Aristotle among the Physicians””; and Connell, *Aristotle on Female Animals*; and Mayhew, *The Female in Aristotle’s Biology: Reason or Rationalization*.
45. Leijenhorst, Review of Bianchi, 354.
46. *Nobiltà*, 5.
47. See *Generation of Animals* II.2-3 (736b35-737a5). On the afterlives of the parallel between the sun and the heart see Guerrini, *Experimenting with Humans and Animals*, 30.
48. On the seat of the passions in Platonic philosophy see Moss, “Pictures and Passions in the *Timaeus* and *Philebus*”.
49. *Nobiltà*, 8. In the lecture ‘Sopra il primo canto del Paradiso’ Varchi had summarized the same opposition between Galen and Plato, on the one hand, and Aristotle, on the other: Varchi, *Lezioni*, vol. 1, 240. Of course, the eclectic approach to combining, and harmonizing, Plato and Aristotle with regard to psychology was very widespread in Renaissance literature. A notable example is the conception of the seat of specific faculties in Donato Acciaiuoli’s *Commentary on the Nicomachean Ethics* (see Kraye, ed., *Cambridge Translations of Renaissance Philosophical Texts*, 48).
50. *Nobiltà*, 33. See *Timaeus* 69c-71d.
51. *Nobiltà*, 36-7: “E tu lasciati stare, né ci toccare sull’honore.”
52. *Ibid.*, 5. On Tagliacozzi see also Santoni-Rugiu and Sykes, *A History of Plastic Surgery*, 185-195.
53. *Nobiltà*, 40: “Onde non ti gloriare se bene ha detto Platone che tu sei origine delle vene, perch’egli qui intende di quelle vene ch’ora i più moderni insieme con Galeno domandano arterie, cioè che

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pulsano, delle quali tu sei veramente origine ... ma delle vene che non pulsano, e che quietamente portano il sangue a tutte le parti del corpo son io fonte e origine.”

54. Ibid., 45.

55. *On The Parts of Animals* III.4 (666b15). On the use of *neuron* by Galen see Longrigg, *Greek Rational Medicine*, 192, and 62 on the anatomical discoveries regarding the origin of the nerves from the brain.

56. *Nobiltà*, 46.

57. Ibid., 47: “Aristotele in questa parte non sa quel ch’egli si dica”.

58. See *Generation of Animals* V.7 (787b11-19). See *Nobiltà*, 46-7. On the reception of the Aristotelian theory regarding the role of nerves, see Tuominen, *The Ancient Commentators on Plato and Aristotle*, 174-176.

59. *Nobiltà*, 25-26: “per autorità dello stesso tuo Aristotele, vive l’uomo di tre sorti di vite, e l’una subordinata e dante luogo all’altra. Prima vive come le piante, cioè per solo nodrimento; poi vive come animale, aggiungendo il senso alla vegetativa facoltà; e ultimamente vive, come uomo, alla venuta del corpo, dell’anima ragionevole, che di fuori viene, e non dalla materia, sì come l’altre due anime.”

60. Ibid., 26: “ti muovi di movimento oscuro ed imperfetto, somigliante a quello delle ostriche, delle madreperle, e de’ conchigli marini, e simili altre nature mezane fra le piante, e gli animali che da’ Greci son chiamati zoophiti.”

61. Ibid., 29-30: “Queste tue ragioni non son ragioni, ma chimere di Medicucci affumicati, e di Anatomisti poltroni. Aristotele voglio io ... e non Galeni!”

62. On the position of the heart see *Parts of Animals* III.4 (666a11-17). On the afterlives of Aristotle’s theory about the position of the heart see Pagel, *New Light on William Harvey*, 31.

63. Ibid., 70-71. See *Parts of Animals* II.7 (652a28-30) on the brain being the coldest part of the body. See also *Generation of Animals* II.6 (743b26-32), where Aristotle explains that the heart is the first organ to be formed in the body because it is the origin of sensation.

64. *Nobiltà*, 72.

65. Ibid., 43. On the 1530 edition of Agrippa’s text see EDIT16 nr. CNCE 545. See also Maclean, *The Renaissance Notion of Women*.

66. See Longrigg, ed., *Greek Medicine*, 91-92. For the use of ‘testes’ to mean ‘ovaries’ in Renaissance literature, see Finucci, *The Manly Masquerade*, 269. See also Siraisi, *Medieval and Early Renaissance Medicine*, 107. Galen often refers to the uterus in the plural, as a ‘double organ’ (bicornuate uterus): see Galen, *On the Usefulness*, Book XIV, § 1 (p. 620).

67. See, e.g., *Nobiltà*, 20.

68. It was commonplace that castration renders an animal meek. Leonardo da Vinci’s notes on this phenomenon are particularly clear: “[the testicles] contain in themselves ardour that is they are augmenters of the animosity and ferocity of the animals”, adding that “experience shows us this clearly in the castrated animals”. Leonardo da Vinci, *The Notebooks*, 120.

69. *Ceva*, 23. “Ma delle donne, che ne dite voi? non ponno già esse per la nuova castratione cambiar la loro in peggior natura.”

70. Ibid. See also *Generation of Animals* V.7 (787b20-23).

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71. *Parts of Animals* II.7 (653a28-653b5).
72. *Parts of Animals* II.7 (653a27-30).
73. *Nobiltà*, 70: “Et è falso ch’io di più grandezza sia nell’uomo, che nella donna, e che perciò siano più commissure nel capo di esso, che della donna. Chiarisciti meglio di questo fatto, non con Aristotele, che mai non mi vidde, ma con Galeno, co’l Vesalio, Realdo Colombo e co’l Falloppio, peritissimi anatomisti, e vedrai che t’inganni di grosso.”
74. *Ibid.*, 38.
75. *Ibid.*: “Hor vedi tu che Platone istesso, conforme al mio Aristotele, dice ch’io sono il fonte del sangue e origine delle vene, e per conseguenza ch’io sono il seggio di quella facoltà che dette vene, come instrumenti portano a tutto il corpo?”.
76. See *ibid.*, 39-40.
77. *Ibid.*, 39.
78. *Ibid.*, 45: “Io dico adunque, che perche io sono sedia dell’anima rationale; principio della facoltà animale, origine del moto, e del senso; che perciò dico, io sono senza paragone alcuno molto più di te nobile.”
79. *Ibid.*, 53: “La onde perche in me siede la memoria, la cogitativa, l’imaginativa, vengo insieme ad esser di te più nobile.”
80. *Ibid.*, 53: “Si conoscer anco l’animal vivere come animale dal moto e dal senso, come corpo animato dalla nutritione, e come huomo dalla ragione.”
- 81 See Galen, *The Affections and Errors of the Soul*, 141: “when this [the rational faculty] is well exercised and achieves its own good condition, the subject is far happier than those who are slaves to bodily pleasures. The other faculties of our souls do not make us any different from goats and dogs, or pigs, sheep, or donkeys.”
82. Ceva, *Lettione*, B2v: “la felicità dunque è il naturale, proprio e ultimo fine dell’uomo, per lo quale, e allo quale è stato creato”. See the reference to Ceva’s lecture, delivered in Pisa, in Sauli Carrega, *Epistolarum libri tres*, 13.
83. Ceva, *Lettione*, B1v: “ragione, della quale egli è dotato, e della quale gli altri animali ne sono affatto privi (che che si dica qualche sciocco Medico).”
84. *Ibid.*, B1r: “lasciando per hora il lume Cristiano, che solo con ragioni naturali voglio discorrere”.
85. *Ibid.*, B3v: “È veramente pare in questo dalla natura peggio trattato l’uomo che non sono gli animali bruti. Percioche questi mai non errano nel suo fine, e l’uomo mille errori vi può commettere, ellegendo bene spesso il suo peggio, o perche non sanno, o perche non vogliono.”
86. *Ibid.*, C1v: “Che voci non di huomo, ma di bestia son queste, che si odono. Nel diletto corporale trouarsi la vera felicitade?”
87. *Nobiltà*, 59.
88. *Ibid.*, 71. See *Timaeus* 44d2-5.
89. *Ibid.*, 60.
90. See *ibid.*, 53.

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91. *Ceva*, 9: “Dicono pur cose assai. E tra l’altre biasimano ch’egli habbia posto tra le parti principali e nobili dell’huomo i Genitali, e che gli habbia lodati sopra il Cuore, & attribuito loro più usi assai di quello che ch’essi genitali habbiano.”
92. *Ibid.*, 14: “CEV. State in cervello, e studiate di non contradirvi, poc’anzi diceste che principale non suona origine, e principio d’altre parti, hora voi anteponete il Cervello a gli altri membri che così nobili non sono, perche da essi altre parti non nascono. Nel che anco al parer mio contradite il Liceti, perche s’io non male avviso, nella sua Nobiltà de’ membri ei fece il Cuore capo & origine delle arterie, & il fegato delle vene.” See Della Torre’s critique of this view, *ibid.*, 21.
93. *Ibid.*, 45: “CEV. A questa maniera dunque si potrebbe dire, che’l seme dell’huomo fusse huomo, e che l’huomo generi in se huomo, quando genera il suo seme.”
94. *Ibid.*, 56: “quei che dicono cose contra la verità, cioè contra quel che dimostra l’esperienza e la ragione insieme non curandosi di dir bugie, pur che parlino in favor d’Aristotele, o d’altro scrittore c’habbino preso a difendere, meritariano che lor fossero tronchi que’ duo nervi a traverso senza pietà alcuna, accioche non potessero più per l’avvenire seminar errori nelle menti degli ancora ignoranti.”
95. *Ibid.*, 18: “Se tu dai, come dici, il vivere, e noi diamo il ben vivere.” See Galen, *On the Usefulness*, Book XIV, § 1 (p. 620), where the organs of generation are distinguished both from those necessary for life (encephalon, heart, liver), and those necessary for a better life (eyes, ears, nostrils).
96. *Nobiltà*, 19.
97. *On Length and Shortness of Life* V (466b5-9), where the emission of seed is considered a factor in shortening the lifespan. On the dangers of lust (*lagneia*) for health, see also the pseudo-Aristotelian *Problems* (Book I: iv.21 and iv.18; on the potential benefits see Book I: iv.16).
98. Ketham, *Fasciculo*, D5v. See also Park, *Secrets of Women*, 27-33.
99. The vernacular choice of Liceti is invested with patriotic intentions by Spotorno, *Storia letteraria della Liguria*, vol. 3, 224.
100. *Nobiltà*, 56.